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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,596	11/21/2003	Ayac Endo	117625	8683
25944	7590	05/09/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER GARRETT, DAWN L	
			ART UNIT 1774	PAPER NUMBER
			MAIL DATE 05/09/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/717,596

Applicant(s)

ENDO ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19,27-29 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19,27-29 and 38-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. This Office action is responsive to the amendment filed February 12, 2007. Claims 1-18, 20-26, and 30-37 are canceled. Claims 19, 27, and 29 were amended. Claims 39 and 40 were added.
2. The rejection of claims 1, 4, 5, and 8-10 under 35 U.S.C. 102(b) as being anticipated by Cantor (US 6,080,450) is withdrawn due to the cancellation of these claims.
3. The rejection of claims 1, 3-10, 18, 19, 21, 27-29, 34, 37, and 38 under 35 U.S.C. 103(a) as being unpatentable over Li (US 6,372,154) is withdrawn due to the cancellation of some of the claims and the amendment.

### *Claim Objections*

4. Claims 19, 27, 29, 39 and 40 are objected to because of the following informalities:

It is suggested that "the second material layer containing **the** metal deactivator" in claim 19 be changed to "the second material layer containing **a** metal deactivator" for the purpose of clarity since "metal deactivator" has not been positively recited as part of the device prior to this phrase.

In claim 27, it is suggested that "in the at least one material layer" be added to the end of the claim in order to clarify the organic functional material is in this layer.

In claim 29, it is suggested that "in the antioxidant layer" be added after "functional material" in the second to last line of the claim in order to clarify the organic functional material is in this layer.

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In claim 39, it is suggested that the word “wherein” be added just prior to “the first material”.

In claim 39, it is suggested that the words “comprised of” be inserted just prior to “luminescent material” for clarity.

In claim 40, it is suggested that the word “wherein” be added just prior to “the first material”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 19, 39, and 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

7. It is seen where the specification provides support for an amount range of 0.1 to 10 percent by weight relative to an organic material within the same layer (i.e., specification, par. 21, page 4), but it is not seen where the specification provides support for the range of 0.1 to 10 percent of deactivator in a second material layer relative to “the first material layer”.

Accordingly, in claim 19, “by weight relative to the first material layer” is considered to be new matter.

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8. Because claim 40 is dependent upon claim 39, claim 40 implies that the first material layer is both a luminescent layer and a hole injection layer simultaneously. While the specification provides for both a hole injection layer and a luminescent layer (see specification, page 24, par. 145), it is not seen where the specification provides support for a hole injection layer comprising luminescent material all in the same layer.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 19, 27-29, and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanuki et al. (JP 07-135079 A) (reference cited by applicant). Watanuki et al. discloses an EL device having at least one of an emission layer and a dielectric layer with metal deactivating agent (see abstract). This disclosure includes the embodiment wherein the luminescent layer does not have a deactivating agent and the dielectric layer (“second material layer”, “at least one material layer” or “antioxidant layer”) does have a deactivating agent as required by the instant claims. With regard to the solubility parameter properties recited in the claims, Watanuki et al. discloses the same types of deactivators that applicant describes in the instant specification. For example, Watanuki discloses triazoles and benzotriazoles as suitable (see par. 6 and 10). The metal deactivator is contained in binder resin (“organic material”) in an amount of 0.1 to 10% by weight (see par. 9). With regard to claims 19, 27-29, 39, and 40, the luminescent material layer

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is not required to have metal deactivator (see abstract). With regard to claim 40, the ITO electrode in the EL device inherently provides a hole injecting function (see par. 10, "transparent electrode") (as evidenced by the description of a hole injecting electrode of a conventional EL device such as the device described by Hamada et al. (US 5,529,853; see abstract of Hamada et al.)).

### ***Response to Arguments***

11. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dawn Garrett  
Primary Examiner  
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